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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/765,034	01/17/2001	Joseph A. Hedrick	CN01084	6960

24265 7590 10/06/2003

SCHERING-PLOUGH CORPORATION
PATENT DEPARTMENT (K-6-1, 1990)
2000 GALLOPING HILL ROAD
KENILWORTH, NJ 07033-0530

EXAMINER

SPECTOR, LORRAINE

ART UNIT	PAPER NUMBER
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1647

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DATE MAILED: 10/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n N .

09/765,034

Applicant(s)

HEDRICK ET AL.

Examin r

Lorraine Spector, Ph.D.

Art Unit

1647

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

P r i d for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 November 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disp sition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 1-3 and 14-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 4-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-20 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Part III: Detailed Office Action

Notice: The Group and/or Art Unit location of your application in the PTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Examiner Lorraine Spector in Group Art Unit **1647**.

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Restriction Requirement:

Applicant's election with traverse of Invention II, claims 4-13, in Paper No. 8 filed 11/6/02 is acknowledged. The traversal is on the ground(s) that the examination of the entire application would not constitute a burden to search. This is not found persuasive because contrary to applicants' assertion that any search of the prior art in regard to group II will reveal whether any prior art exists as to the other Groups, a search is directed to references which would render the invention obvious, as well as references directed to anticipation of the invention, and therefore requires a search of relevant literature in many different areas of subject matter. In this case, the search for the method steps involved in identifying agonists or antagonists requires a separate search from that required for the nucleic acid or protein, which are compounds.

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The requirement is still deemed proper and is therefore made FINAL.

Formal Matters:

The information disclosure statement filed April 16, 2001 has been fully considered. A copy of the signed form PTO-1449 is enclosed.

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Claim Interpretation: As the specification makes no mention of gene therapy or transgenic animals, claims that recite "A host cell" are interpreted by the Examiner to indicate an isolated host cell, as opposed to a host cell that comprises part of a living animal.

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Objections and Rejections under 35 U.S.C. §112:

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5 Claims 4-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

 Claim 4 is indefinite for failing to further limit the claim from which it depends. A nucleic acid does not further limit the protein that it encodes.

10 Claim 7 is indefinite for failing to particularly point out that which applicant regards as the invention. There is no nexus between the polypeptide to be produced and the nucleic acid being expressed; the claim can, in its broadest reasonable interpretation, be taken to be a method of making *any* protein produced by the cell in question, as opposed to the protein encoded by the nucleic acid of claim 4. Claim 12 is similarly indefinite.

15 The term "moderately stringent conditions" in claim 9 is a relative term which renders the claim indefinite. The term "moderately stringent conditions" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The scope of what will hybridize to a given sequence is dependent upon the hybridization and wash conditions used. Without specification of such, the metes and bounds of the claim cannot be determined.

20 Claim 13 is indefinite as there is no antecedent basis for "the receptor". Further, even if the antecedent basis problem were corrected, receptors are generally non-soluble molecules that cannot be directly isolated from a cell culture, such that claim 13 would be found to comprise insufficient method steps.

 The remaining claims are rejected for depending from an indefinite claim.

25 **Rejections Over Prior Art:**

 The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

5 (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 4-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Conley et al., U.S. Patent Number 5,871,963.

10 Conley et al. disclose the P2U2 purinergic receptor, and nucleic acid encoding such. SEQ ID NO: 2 of Conley et al. is 99.1% identical to SEQ ID NO: 2 of the instant application, with 3 amino acids' difference between the two sequences. Claims are to nucleic acids encoding the protein of SEQ ID NO: 2 of the patent, vectors, host cells, expression of protein, etc. Accordingly, Conley et al. anticipates the claims.

15 Claims 4-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Conley et al., WO 97/20045. This reference is the PCT publication which claims priority to the application that issued as U.S. Patent Number 5,871,963. The teachings are equivalent to those discussed above. Accordingly, Conley et al. anticipates the claims.

20 Claims 4-13 are rejected under 35 U.S.C. 102(a) as being anticipated by Behan et al., WO 00/22131.

25 Behan et al. disclose and claim a nucleic acid encoding a human G protein-coupled receptor encoded by a clone referred to as hCHN8(N235K), which has 99.7% identity to the full length of SEQ ID NO: 2 of the instant application., see claim 69. The sole difference between the protein encoded by clone hCHN8(N235K) and the protein of SEQ ID NO: 2 of the instant application is the substitution P244L (in reference to SEQ ID NO: 2). Vectors, host cells, expression, and isolation of the encoded protein are all disclosed, see claims 71-76, and page 41, for example.

Advisory Information:

No claim is allowed.

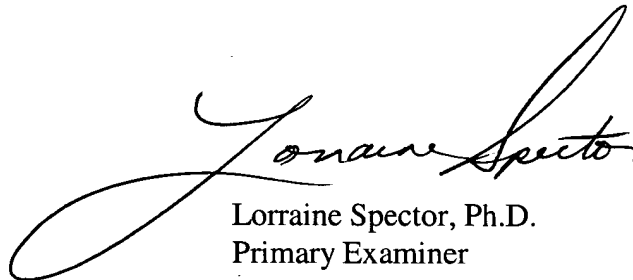
Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Lorraine M. Spector, whose telephone number is (703) 308-1793. Dr. Spector can normally be reached Monday through Friday, 9:00 A.M. to 5:30 P.M.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Dr. Gary L. Kunz, at (703)308-4623.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist at telephone number (703) 308-0196.

Certain papers related to this application may be submitted to Group 1800 by facsimile transmission. Papers should be faxed to Technology Center 1600 via the PTO Fax Center located in Crystal Mall 1 (CM1). The faxing of such papers must conform with the notices published in the Official Gazette, 1156 OG 61 (November 16, 1993) and 1157 OG 94 (December 28, 1993) (see 37 C.F.R. § 1.6(d)). NOTE: If Applicant *does* submit a paper by fax, the original signed copy should be retained by applicant or applicant's representative. NO DUPLICATE COPIES SHOULD BE SUBMITTED so as to avoid the processing of duplicate papers in the Office.

Official papers filed by fax should be directed to (703) 872-9306 (before final rejection) or (703)872-9307 (after final). Faxed draft or informal communications with the examiner should be directed to (703) 746-5228.



Lorraine Spector, Ph.D.
Primary Examiner

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